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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A filter cleaning device comprising:
  - a) a cleaning fluid delivery device for providing a cleaning fluid;
  - b) at least one actuator;
  - c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; [and]
  - d) a first collector positioned to receive waste material released from the filter during a filter cleaning event;
  - e) a second collector positioned downstream of said first collector; and
  - f) a vacuum device positioned to pull cleaning fluid and waste material into at least one of the collectors.
2. (Original) The device of claim 1 wherein said cleaning fluid delivery device includes a nozzle that translates across the surface of said filter in two perpendicular axes.
3. (Original) The device of claim 1 wherein said cleaning fluid delivery device includes a nozzle that moves across the surface of the filter along a path selected from one of the following: a rotational path, a curved path, or a spiral

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path.

4. (Original) The device of claim 1 wherein said path is a predetermined path.
5. (Original) The device of claim 1 wherein the cleaning fluid delivery device comprises a nozzle coupled to an arm that is moved by said actuator that guides the nozzle across the surface of the filter.
6. (Original) The device of claim 1 wherein the cleaning fluid delivery device comprises flexible duct coupled to a source of high pressure fluid.
7. (Original) The device of claim 1 wherein the cleaning fluid delivery device comprises means for delivering fluid to the filter.
8. (Original) The device of claim 1 wherein the cleaning fluid delivery device is moved along a path to provide a substantially uniform level of cleaning of said surface of the filter.

Claim 9 (Cancelled)

10. (Currently Amended) The device of claim [9] 1 wherein said ~~[filtering device]~~ first collector is selected from one of the following: a HEPA filter or a ULPA filter.

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11. (Currently Amended) The device of claim 1 wherein said second collector ~~[filtering device]~~ is selected from one of the following: a HEPA filter or a ULPA filter.

Claim 12 (Cancelled)

13. (Currently Amended) The device of claim [9] 1 wherein said second ~~[filtering device]~~ collector is a diesel particulate filter.

14. (Currently Amended) The device of claim [9] 1 wherein said second ~~[filtering device]~~ collector is a ceramic wall-flow particulate filter.

15. (Original) The device of claim 1 wherein said collector includes at least one of: a HEPA filter or a ULPA filter.

16. (Original) The device of claim 1 wherein said controller can pulse the cleaning pressure and fluid flow rate from the delivery device.

17. (Original) The device of claim 1 wherein said fluid delivery device is coupled to a pulsing fluid source for pulsing the cleaning pressure and fluid flow rate from the delivery device.

18. (Original) The device of claim 1 wherein controller automatically determines when to stop a cleaning event.

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19. (Original) The device of claim 1 further comprising a heating device for heating cleaning fluid prior to use on the filter.

20. (Original) The device of claim 1 further comprising a fluid flow sensor positioned to determine if a section of filter below the nozzle is more or less clogged with particulate mater than regions of the filter around the section.

21. (Original) The device of claim 1 further comprising an air blower to direct flow in the direction opposite to the previously applied cleaning fluid to determine a pressure drop across the filter.

22. (Original) The device of claim 1 wherein said controller instructs the actuator to move a nozzle of the delivery device at a relatively uniform distance from the surface of the filter.

23. (Original) The device of claim 1 further comprising an electrical heating element and supplementary air supply.

24. (Original) The device of claim 1 wherein the delivery device is adapted for use with a suction mask to focus suction on the filter.

25. (Original) The device of claim 1 wherein the filter is coupled to an air blower and heater-based regeneration system positioned to heat the filter prior to application of the cleaning fluid.

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26. (Currently Amended) The device of claim 1 further comprising a system wherein a pressure drop across the filter in the reverse direction of cleaning fluid flow is used as a process diagnosis to determine success of filter cleaning.

27. (Currently Amended) The device of claim 1 further comprising a system with reverse flow method of process diagnosis coupled to the filter to determine success of filter cleaning.

28. (Original) The device of claim 1 wherein the actuator rotates the filter while the nozzle sprays cleaning fluid onto the filter.

29. (Original) The device of claim 1 wherein the actuator rotates the filter and rotates the nozzle about an axis outside of the filter to deliver cleaning fluid to said filter.

30. (Original) The device of claim 1 wherein the actuator rotates a rectangular nozzle about the central axis of the filter to deliver cleaning fluid to said filter.

31. (Currently Amended) The device of claim 1 wherein a cleaning fluid nozzle ~~[may be]~~ is mounted to a plunger attached on the translation arm, said nozzle is pushed down and held in contact with the face of the filter and allows the nozzle to follow the contours of the surface of filter.

32. (Original) The device of claim 1 wherein a nozzle is made of an

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abrasion resistant plastic.

33. (Original) The device of claim 1 wherein a nozzle on the cleaning device moves through a pre-programmed set of positions, and optionally monitors the flow rate at each position.

34. (Currently Amended) The device of claim 1 further comprising a blower wherein the blower is switched to direct the flow of blower into the [DPF] filter in the direction opposite to the previously applied cleaning fluid.

35. (Currently Amended) The device of claim 1 wherein the pressure drop across the [DPF] filter is measured using the pressure sensor and this value is compared with a previously determined pressure drop for a clean filter.

36. (Original) The device of claim 1 further comprising a cleaning fluid heater.

37. (Original) The device of claim 1 wherein said collector includes a plurality of filtration stages.

38. (Currently Amended) The device of claim 1 further comprising a mask having an uncovered section [by focusing] that increases [the] suction force on an area of the filter that is receiving cleaning fluid~~[on a small area, thus concentrating the suction near the region that is being treated with compressed air. The mask is essentially a disk from which an arc has been cut,].~~

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39. (Original) The device of claim 1 wherein a nozzle travels a path across the filter until it reaches the center of the filter wherein a limit switch is engaged which deactivates the main power relay that then in turn de-energizes the solenoid, motor, and vacuum.

40. (Original) The device of claim 1 wherein the actuator rotates a multi-port nozzle about the central axis of the filter to deliver cleaning fluid to said filter.

Claim 41 (Canceled).

42. (Currently Amended) A method of filter cleaning, the method comprising:

- a) using a cleaning fluid delivery device to providing a cleaning fluid;
- b) using a controller to instruct an actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and
- c) using a first collector positioned to receive waste material released from the filter during a filter cleaning event;
- d) using a second collector positioned downstream of said first collector to capture materials flowing out from the first collector; and
- e) using a vacuum device to pull waste material and cleaning fluid through at least one of the collectors.

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43. (Currently Amended) The method of claim 42 wherein ~~the~~ the automatic movement comprises translating a nozzle across the surface of said filter in two perpendicular axes.

44. (Currently Amended) The method of claim 42 wherein ~~the~~ the automatic movement comprises moving a nozzle across the surface of the filter along a path selected from one of the following: a rotational path, a curved path, or a spiral path.

45. (Original) The method of claim 42 wherein said path is a predetermined path.

46. (Original) The method of claim 42 wherein said automatically move comprises moving a nozzle coupled to an arm by said actuator that guides the nozzle across the surface of the filter.

47. (Original) The method of claim 42 further comprising using a flexible duct coupled to a source of high pressure fluid to deliver said fluid.

48. (Original) The method of claim 42 wherein the cleaning fluid delivery device is moved along a path to provide a substantially uniform level of cleaning of said surface of the filter.

Claims 49 - 50 (Canceled)



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51. (Currently Amended) The method of claim [36] 42 wherein said second ~~[filtering device]~~ collector is a diesel particulate filter.

52. (Currently Amended) The method of claim [36] 42 wherein said second ~~[filtering device]~~ collector is a ceramic wall-flow particulate filter.

53. (Original) The method of claim 42 wherein said collector includes at least one of: a HEPA filter or a ULPA filter.

54. (Original) The method of claim 42 further comprising pulsing the cleaning pressure and fluid flow rate from the delivery device.

55. (Original) The method of claim 42 wherein said fluid delivery device is coupled to a pulsing fluid source for pulsing the cleaning pressure and fluid flow rate from the delivery device.

56. (Original) The method of claim 42 wherein said controller automatically determines when to stop a cleaning event.

57. (Original) The method of claim 42 further comprising using a heating device for heating cleaning fluid prior to use on the filter.

58. (Original) The method of claim 42 further comprising using a fluid flow sensor positioned to determine if a section of filter below the nozzle is more

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or less clogged with particulate mater than regions of the filter around the section.

59. (Original) The method of claim 42 further comprising using an air blower to direct flow in the direction opposite to the previously applied cleaning fluid to determine a pressure drop across the filter.

60. (Original) The method of claim 42 further comprising moving a nozzle of the delivery device at a relatively uniform distance from the surface of the filter.

61. (Original) The method of claim 42 further comprising using a suction mask with the delivery device to focus suction on the filter.

62. (Original) The method of claim 42 wherein the filter is coupled to a heater-based regeneration system positioned to heat the filter prior to application of the cleaning fluid.

63. (Currently Amended) The method of claim 42 further comprising using a system with reverse flow method of process diagnosis coupled to the filter to determine success of filter cleaning.

64. (Currently Amended) The method of claim 42 further comprising using a pressure drop across the filter in the reverse direction of cleaning fluid flow as a process diagnosis to determine success of filter cleaning.

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65. (Original) The method of claim 42 wherein the actuator rotates the filter while the nozzle sprays cleaning fluid onto the filter.

66. (Original) The method of claim 42 wherein the actuator rotates the filter and rotates the nozzle about an axis outside of the filter to deliver cleaning fluid to said filter.

67. (Original) The method of claim 42 wherein the actuator rotates a rectangular nozzle about the central axis of the filter to deliver cleaning fluid to said filter.

68. (Original) The method of claim 42 wherein the actuator rotates a multi-port nozzle about the central axis of the filter to deliver cleaning fluid to said filter.

69. (New) A filter cleaning device comprising:

- a) a cleaning fluid delivery device for providing a cleaning fluid;
- b) at least one actuator;
- c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and
- d) a collector positioned to receive waste material released from the filter during a filter cleaning event,

wherein said collector includes at least one of: a HEPA filter or a ULPA filter.

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**70. (New) A filter cleaning device comprising:**

- a) a cleaning fluid delivery device for providing a cleaning fluid;**
- b) at least one actuator;**
- c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter;**
- d) a collector positioned to receive waste material released from the filter during a filter cleaning event; and**
- e) an air blower to direct flow in the direction opposite to the previously applied cleaning fluid to determine a pressure drop across the filter.**

**71. (New) A filter cleaning device comprising:**

- a) a cleaning fluid delivery device for providing a cleaning fluid;**
- b) at least one actuator;**
- c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter;**
- d) a collector positioned to receive waste material released from the filter during a filter cleaning event; and**
- e) an electrical heating element and supplementary air supply.**

**72. (New) A filter cleaning device comprising:**

- a) a cleaning fluid delivery device for providing a cleaning fluid;**
- b) at least one actuator;**

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c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and

d) a collector positioned to receive waste material released from the filter during a filter cleaning event,

wherein the delivery device is adapted for use with a suction mask to focus suction on the filter.

73. (New) A filter cleaning device comprising:

a) a cleaning fluid delivery device for providing a cleaning fluid;

b) at least one actuator;

c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and

d) a collector positioned to receive waste material released from the filter during a filter cleaning event;

wherein the filter is coupled to an air blower and heater-based regeneration system positioned to heat the filter prior to application of the cleaning fluid.

74. (New) A filter cleaning device comprising:

a) a cleaning fluid delivery device for providing a cleaning fluid;

b) at least one actuator;

c) a controller with logic for instructing said actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a

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surface of the filter to spray the cleaning fluid onto the filter; and

d) a collector positioned to receive waste material released from the filter during a filter cleaning event, wherein said collector includes a plurality of filtration stages.

75. (New) A method of filter cleaning, the method comprising:

a) using a cleaning fluid delivery device to providing a cleaning fluid;

b) using a controller to instruct an actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and

c) using a collector positioned to receive waste material released from the filter during a filter cleaning event, wherein said collector includes at least one of: a HEPA filter or a ULPA filter.

76. (New) A method of filter cleaning, the method comprising:

a) using a cleaning fluid delivery device to providing a cleaning fluid;

b) using a controller to instruct an actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter;

c) using a collector positioned to receive waste material released from the filter during a filter cleaning event; and

d) using an air blower to direct flow in the direction opposite to the previously applied cleaning fluid to determine a pressure drop across the filter.

77. (New) A method of filter cleaning, the method comprising:

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- a) using a cleaning fluid delivery device to providing a cleaning fluid;
- b) using a controller to instruct an actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter;
- c) using a collector positioned to receive waste material released from the filter during a filter cleaning event; and
- d) using a suction mask with the delivery device to focus suction on the filter.

78. (New) A method of filter cleaning, the method comprising:

- a) using a cleaning fluid delivery device to providing a cleaning fluid;
- b) using a controller to instruct an actuator to automatically move at least a portion of the cleaning fluid delivery device along a path across a surface of the filter to spray the cleaning fluid onto the filter; and
- c) using a collector positioned to receive waste material released from the filter during a filter cleaning event, wherein the filter is coupled to a heater-based regeneration system positioned to heat the filter prior to application of the cleaning fluid.